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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,846	12/31/2001	Heikki Mannila	875.0100.U1(US)	9710
29683	7590	05/10/2004	EXAMINER	
HARRINGTON & SMITH, LLP 4 RESEARCH DRIVE SHELTON, CT 06484-6212			ROBINSON, GRETA LEE	
		ART UNIT	PAPER NUMBER	
		2177	9	

DATE MAILED: 05/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.	MANNILA ET AL.	
10/038,846		
Examiner Greta L. Robinson	Art Unit 2177	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

1) Responsive to communication(s) filed on 31 December 2001.  
2a) This action is **FINAL**.                                    2b) This action is non-final.  
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

4) Claim(s) 1-48 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) Claim(s) \_\_\_\_\_ is/are allowed.  
6) Claim(s) 1-48 is/are rejected.  
7) Claim(s) \_\_\_\_\_ is/are objected to.  
8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

9) The specification is objected to by the Examiner.  
10) The drawing(s) filed on 15 April 2002 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:  
1. Certified copies of the priority documents have been received.  
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

1) Notice of References Cited (PTO-892)  
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5 & 6.

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. 9.  
5) Notice of Informal Patent Application (PTO-152)  
6) Other: \_\_\_\_\_.

## DETAILED ACTION

1. Claims 1-48 are pending in the present application.

### *Drawings*

2. The drawings were received on April 15, 2002. These drawings are approved.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-48 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1 and 48, it is unclear as to how calculate/derive the similarity formula given the random mapping as cited on page 10 of the disclosure. How is the predetermined similarity value derived given the random mapping formula? Claims 2-11 are rejected based on dependency.

Regarding claim 2, there is a lack of antecedent basis for the following: "j+1 .... K" [note claim 2 line 4; claim 6 line 4; and claim 20 line].

Regarding claim 12, there is a lack of antecedent basis for the following: "the query vector" [note claim 12 line 11]. Claims 13-19 are rejected based on dependency.

Regarding claim 20, the reference numerals are vague and unclear, note claim 20 line 3-11]. It is unclear as to what elements the claim is referencing within the brackets. Claims 21-33 are rejected based on dependency.

Regarding claim 34 the following limitation is lacks proper antecedent basis: Q<sub>e</sub> [Note claim 34 line 17]. Claims 35-47 are rejected based on dependency.

***Allowable Subject Matter***

5. Claims 1-48 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hill US Patent 5,713,016

Chakrabarti et al. US Patent 6,189,005 B1

Baclawski US Patent 6,470,333 B1

Castelli et al. US Patent 6,134,541

Fayyad et al. US Patent 6,263,334 B1

Kaski, *Dimensionality Reduction by Random Mapping : Fast Similarity*

*Computation for Clustering*

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greta L. Robinson whose telephone number is (703) 308-7565. The examiner can normally be reached on Mon.-Fri. 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on (703) 305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



GRETA ROBINSON  
PRIMARY EXAMINER

Greta Robinson  
Primary Examiner  
May 5, 2004